

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION

KERANOS, LLC,	)	) CASE NO.: _
	)	)
Plaintiff,	)	)
	)	) <b>COMPLAINT FOR PATENT</b>
v.	)	) <b>INFRINGEMENT</b>
	)	)
ANALOG DEVICES, INC.; ALCATEL-	)	)
LUCENT; ALCATEL BUSINESS	)	) <b>DEMAND FOR JURY TRIAL</b>
SYSTEMS; ALCATEL-LUCENT	)	)
HOLDINGS, INC.; ALCATEL USA GP,	)	)
INC.; ALCATEL USA MARKETING, INC.;	)	)
ALCATEL USA RESOURCES, INC.;	)	)
ALCATEL USA SOURCING, INC.; APPLE,	)	)
INC.; ATHEROS COMMUNICATIONS,	)	)
INC.; AUSTRIAMICROSYSTEMS AG;	)	)
AUSTRIAMICROSYSTEMS USA, INC.;	)	)
EM MICROELECTRONIC – MARIN SA;	)	)
EM MICROELECTRONIC – U.S., INC.;	)	)
SEIKO EPSON CORPORATION; EPSON	)	)
AMERICA, INC.; FREESCALE	)	)
SEMICONDUCTOR, INC.; INFINEON	)	)
TECHNOLOGIES AG; INFINEON	)	)
TECHNOLOGIES NORTH AMERICA	)	)
CORP.; INTERNATIONAL BUSINESS	)	)
MACHINES CORPORATION; INTEL	)	)
CORPORATION; MICROCHIP	)	)
TECHNOLOGY, INC.; MICRONAS	)	)
SEMICONDUCTOR HOLDING AG;	)	)
MICRONAS USA, INC.; NANYA	)	)
TECHNOLOGY CORPORATION; NANYA	)	)
TECHNOLOGY CORPORATION, USA;	)	)
NATIONAL SEMICONDUCTOR	)	)
CORPORATION; NEC CORPORATION;	)	)
NXP SEMICONDUCTORS	)	)
NETHERLANDS, B.V.; NXP	)	)
SEMICONDUCTORS USA, INC.; OKI	)	)
SEMICONDUCTOR CO., LTD.; ROHM	)	)
SEMICONDUCTOR, U.S.A., LLC;	)	)
QUALCOMM, INC.; RENESAS	)	)
ELECTRONICS CORPORATION;	)	)
RENESAS ELECTRONICS AMERICA,	)	)
INC.; SAMSUNG SEMICONDUCTOR,	)	)
INC.; SAMSUNG GROUP; TEXAS	)	)
INSTRUMENTS, INC.; TOSHIBA	)	)

CORPORATION; TOSHIBA AMERICA, INC.; TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.; TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.; TSMC NORTH AMERICA; UBICOM, INC.; VANGUARD INTERNATIONAL SEMICONDUCTOR CORPORATION; VIS MICRO, INC.; WINBOND ELECTRONICS CORPORATION; WINBOND ELECTRONICS CORPORATION AMERICA; AND ZILOG, INC.,

Defendants.

Keranos, LLC (“Keranos”) hereby alleges for its Complaint against defendants Analog Devices, Inc.; Alcatel-Lucent; Alcatel Business Systems; Alcatel-Lucent Holdings, Inc.; Alcatel USA GP, Inc.; Alcatel USA Marketing, Inc.; Alcatel USA Resources, Inc.; Alcatel USA Sourcing, Inc.; Apple, Inc.; Atheros Communications Inc.; Austriamicrosystems AG; Austriamicrosystems USA, Inc.; EM Microelectronic – Marin SA; EM Microelectronic – U.S., Inc.; Seiko Epson Corporation; Epson America, Inc.; Freescale Semiconductor, Inc.; Infineon Technologies AG; Infineon Technologies North America Corp.; International Business Machines Corporation; Intel Corporation; Microchip Technology, Inc.; Micronas Semiconductor Holding AG; Micronas USA, Inc.; Nanya Technology Corporation; Nanya Technology Corporation, USA; National Semiconductor Corporation; NEC Corporation; NXP Semiconductors Netherlands, B.V.; NXP Semiconductors USA, Inc.; Oki Semiconductor Co., Ltd.; ROHM Semiconductor, U.S.A., LLC; Qualcomm, Inc.; Renesas Electronics Corporation; Renesas Electronics America, Inc.; Samsung Semiconductor, Inc.; Samsung Group; Texas Instruments, Inc.; Toshiba Corporation; Toshiba America, Inc.; Toshiba America Electronic Components, Inc.; Taiwan Semiconductor Manufacturing Company, Ltd.; TSMC North America; Ubicom, Inc.; Vanguard International Semiconductor Corporation; VIS Micro, Inc.; Winbond Electronics Corporation; Winbond Electronics Corporation America; and ZiLOG, Inc. (collectively the “Defendants”) on personal

knowledge as to its own actions and on information and belief as to the actions of others, as follows:

**THE PARTIES**

1. Plaintiff Keranos is a Texas limited liability company with a place of business at 430 N. Center St., Suite 108, Longview, Texas 75601.

2. On information and belief, Defendant Analog Devices, Inc. (“ADI”) is a Massachusetts corporation with its principal place of business at One Technology Way, Norwood, MA 02062.

3. On information and belief, Defendant Alcatel-Lucent (“Alcatel-Lucent”) is a French corporation with its principal place of business at 54 rue de la Boétie, 75008 Paris, France. On further information and belief, Defendant Alcatel Business Systems (“Alcatel Business”) is a French corporation with its principal place of business at 32, Avenue Kleber, 92700, Colombes, France. On further information and belief, Defendant Alcatel-Lucent Holdings, Inc. (“Alcatel Holdings”) is a Delaware corporation with its principal place of business at 3400 W. Plano Pkwy., Plano, Texas 75075. On further information and belief, Defendant Alcatel USA GP, Inc. (“Alcatel USA”) is a Delaware corporation with its principal place of business at 3400 W. Plano Pkwy., Plano, Texas 75075. On further information and belief, Defendant Alcatel USA Marketing, Inc. (“Alcatel Marketing”) is a Delaware corporation with its principal place of business at 3400 W. Plano Pkwy., Plano, Texas 75075. On further information and belief, Defendant Alcatel USA Resources, Inc. (“Alcatel Resources”) is a Delaware corporation with its principal place of business at 3400 W. Plano Pkwy., Plano, Texas 75075. On further information and belief, Defendant Alcatel USA Sourcing, Inc. (“Alcatel Sourcing”) is a Delaware corporation with its principal place of business at 3400 W. Plano Pkwy., Plano, Texas 75075. Alcatel-Lucent, Alcatel Business, Alcatel Holdings, Alcatel USA, Alcatel Marketing, Alcatel Resources, and Alcatel Sourcing will be referred to herein individually and collectively as the “Alcatel Defendants.”

4. On information and belief, Defendant Apple, Inc. (“Apple”) is a California corporation with its principal place of business at 1 Infinite Loop, Cupertino, California 95014.

5. On further information and belief, Defendant Atheros Communications, Inc. (“Atheros”) is a Delaware corporation with a principal place of business at 5480 Great America Parkway, Santa Clara, CA 95054.

6. On information and belief, Defendant Austriamicrosystems AG (“Austriamicrosystems AG”) is an Austrian corporation with a principal place of business at Tobelbader Strasse 30, Schloss Unterpremstaetten, A-8141 Unterpremstaetten, Austria. On further information and belief, Defendant Austriamicrosystems USA, Inc. (“Austriamicrosystems USA”) is a California corporation with a principal place of business at 5201 Great America Parkway, Suite 320, Santa Clara, CA 95054. Austriamicrosystems AG and Austriamicrosystems USA will be referred to herein individually and collectively as the “Austriamicrosystems Defendants.”

7. On information and belief, Defendant EM Microelectronic – Marin SA (“EM Micro”) is a Swiss corporation with a principal place of business at EM Microelectronic, Rue des Sors 3, 2074 Marin, Switzerland. On further information and belief, Defendant EM Microelectronic – U.S., Inc. (“EM Micro U.S.”) is a Colorado corporation with a principal place of business at 5475 Mark Dabling Boulevard, Suite 200, Colorado Springs, CO 80918. EM Micro and EM Micro U.S. will be referred to herein individually and collectively as the “EM Micro Defendants.”

8. On information and belief, Defendant Seiko Epson Corporation (“Seiko Epson”) is a Japanese corporation with a principal place of business at 3-3-5 Owa, Suwa-Shi, Nagano 392-8502, Japan. On further information and belief, Defendant Epson America, Inc. (“Epson America”) is a California corporation with a principal place of business at 3840 Kilroy Airport Way, Long Beach, California 90806. Seiko

Epson and Epson America will be referred to herein individually and collectively as the “Epson Defendants.”

9. On information and belief, Defendant Freescale Semiconductor, Inc. (“Freescale”) is a Delaware corporation with a principal place of business at 6501 William Cannon Drive West, Austin, TX 78735.

10. On information and belief, Defendant Infineon Technologies AG (“Infineon AG”) is a German corporation with a principal place of business at Am Campeon 1-12, 85579 Neubiberg, Germany. On further information and belief, Defendant Infineon Technologies North America Corp. (“Infineon North America”) is a Delaware corporation with a principal place of business at 640 N. McCarthy Blvd. Milpitas, CA 95035. Infineon AG and Infineon North America will be referred to herein individually and collectively as “Infineon Defendants.”

11. On information and belief, Defendant International Business Machines Corporation (“IBM”) is a New York corporation with a principal place of business at 1 New Orchard Road, Armonk, New York 10504.

12. On information and belief, Defendant Intel Corporation (“Intel”) is a Delaware corporation with a principal place of business at 2200 Mission College Blvd, Santa Clara, CA 95054.

13. On information and belief, Defendant Microchip Technology, Inc. (“Microchip”) is a Delaware corporation with a principal place of business at 2355 West Chandler Boulevard, Chandler, AZ 85224.

14. On information and belief, Defendant Micronas Semiconductor Holding AG (“Micronas”) is a Swiss corporation with a principal place of business at Technopark Technoparkstrasse 1, CH-8005 Zurich, Switzerland. On further information and belief, Defendant Micronas USA, Inc. (“Micronas USA”) is a Delaware corporation with a principal place of business at 2805 Mission College Blvd.,

Santa Clara, California 95054. Micronas and Micronas USA will be referred to herein individually and collectively as the “Micronas Defendants.”

15. On information and belief, Defendant Nanya Technology Corporation (“Nanya”) is a Taiwanese corporation with a principal place of business at Hwa Ya Technology Park, 669 Fu Hsing 3rd Road, Kueishan, Taoyuan, Taiwan. On further information and belief, Defendant Nanya Technology Corporation, USA (“Nanya USA”) is a Delaware corporation with a principal place of business at 5104 Old Ironsides Dr., Suite 113, Santa Clara, CA 95054. Nanya and Nanya USA will be referred to herein individually and collectively as the “Nanya Defendants.”

16. On information and belief, Defendant National Semiconductor Corporation (“National”) is a Delaware corporation with a principal place of business at 2900 Semiconductor Dr. Santa Clara, CA 95052.

17. On information and belief, Defendant NEC Corporation (“NEC”) is a Japanese corporation with a principal place of business at 7-1, Shiba 5-chome, Minato-ku, Tokyo, 108-8001, Japan.

18. On information and belief, Defendant NXP Semiconductors Netherlands, B.V. (“NXP”) is a Dutch corporation with a principal place of business at High Tech Campus 45, 5656 AG Eindhoven, Netherlands. On further information and belief, Defendant NXP Semiconductors USA, Inc. (“NXP USA”) is a Delaware corporation with a principal place of business at 1109 McKay Drive, San Jose, CA 95131. NXP and NXP USA will be referred to herein individually and collectively as the “NXP Defendants.”

19. On information and belief, Defendant Oki Semiconductor Co., Ltd. (“Oki Semiconductor”) is a Japanese corporation with a principal place of business at 550-1, Higashi-Asakawacho, Hachioji City, Tokyo 193-8550, Japan. On further information and belief, Defendant ROHM Semiconductor U.S.A., LLC (“ROHM”) is a Delaware limited liability company with a principal place of business at 10145 Pacific

Heights Blvd., Suite 1000, San Diego, CA 92121. ROHM and Oki Semiconductor will be referred to herein individually and collectively as the “ROHM Defendants.”

20. On information and belief, Defendant Qualcomm, Inc. (“Qualcomm”) is a Delaware corporation with a principal place of business at 5775 Morehouse Drive, San Diego, CA 92121.

21. On information and belief, Defendant Renesas Electronics Corporation (“Renesas”) is a Japanese corporation with its principal place of business at Nippon Bldg., 2-6-2 Ote-machi, Chiyoda-ku, Tokyo 100-0004, Japan. On further information and belief, Defendant Renesas Electronics America, Inc. (“Renesas America”) is a California corporation with a principal place of business at 2880 Scott Blvd., Santa Clara, California 95050. Renesas and Renesas America will be referred to herein individually and collectively as the “Renesas Defendants.”

22. On information and belief, Defendant Samsung Group (“Samsung”) is a South Korean corporation with a principal place of business at 250, 2-Ka Taepyung-ro, Chung-ku, Seoul, South Korea. On further information and belief, Defendant Samsung Semiconductor, Inc. (“Samsung Semiconductor”) is a California corporation with a principal place of business at 3655 North 1st Street, San Jose, California 95134. Samsung and Samsung Semiconductor will be referred to herein individually and collectively as the “Samsung Defendants.”

23. On information and belief, Defendant Texas Instruments, Inc. (“TI”) is a Delaware corporation with a principal place of business at 12500 TI Boulevard, Dallas, TX 75266-4136.

24. On information and belief, Defendant Toshiba Corporation (“Toshiba”) is a Japanese corporation with a principal place of business at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan. On further information and belief, Defendant Toshiba America, Inc. (“Toshiba America”) is a Delaware corporation with a principal place of business at 1251 Avenue of the Americas, New York, NY 10020. On further information

and belief, Defendant Toshiba America Electronic Components, Inc. (“TAEC”) is a California corporation with a principal place of business at 19900 MacArthur Boulevard, Suite 400, Irvine, CA 92612. Toshiba, Toshiba America and TAEC will be referred to herein individually and collectively as the “Toshiba Defendants.”

25. On information and belief, Defendant Taiwan Semiconductor Manufacturing Company, Ltd. (“TSMC”) is a Taiwanese corporation with a principal place of business at No. 8 Li-Hsin Road 6, Hsinchu Science Park, Hsinchu, Taiwan. On further information and belief, Defendant TSMC North America (“TSMC America”) is a California corporation with a principal place of business at 2585 Junction Avenue, San Jose, CA 95134. TSMC and TSMC America will be referred to herein individually and collectively as the “TSMC Defendants.”

26. On further information and belief, Defendant Ubicom, Inc. (“Ubicom”) is a California corporation with a principal place of business at 195 Baypointe Parkway, San Jose, CA 95134.

27. On information and belief, Defendant Vanguard International Semiconductor Corporation (“Vanguard”) is a Taiwanese corporation with a principal place of business at No. 123, Park Ave.-3rd, Hsinchu Science Park, Hsinchu, Taiwan. On further information and belief, VIS Micro, Inc. (“VIS Micro”) is a California corporation with a principal place of business at 2620 Augustine Drive, Suite 170, Santa Clara, CA 95054. Vanguard and VIS Micro will be referred to herein individually and collectively as the “Vanguard Defendants.”

28. On information and belief, Defendant Winbond Electronics Corporation (“Winbond”) is a Taiwan corporation with a principal place of business at No. 8, Keya Rd. I, Central Taiwan Science Park, Taichung County, 428, Taiwan. Upon further information and belief, Defendant Winbond Electronics Corporation America (“Winbond America”) is a Delaware corporation with a principal place of business at



2727 North First Street, San Jose, California 95134. Winbond and Winbond America will be referred to herein individually and collectively as the “Winbond Defendants.”

29. On further information and belief, Defendant ZiLOG, Inc. (“ZiLOG”) is a Delaware corporation with a principal place of business at 6800 Santa Teresa Blvd., San Jose, CA 95119.

### **JURISDICTION AND VENUE**

30. This action arises under the patent laws of the United States, Title 35 of the United States Code, §§ 271 and 281, *et seq.* because each of the Defendants has committed acts of patent infringement within the United States and this judicial district. Accordingly, this Court has subject matter jurisdiction of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

31. Personal jurisdiction and venue are proper in this Court pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b), in that the defendants are subject to personal jurisdiction in this district.

### **THE PATENTS IN SUIT**

32. On January 3, 1989, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 4,795,719 (“the ’719 Patent”), entitled “Self-Aligned Split Gate EPROM Process,” to Boaz Eitan. A copy of the ’719 Patent is attached to the Complaint as Exhibit A.

33. On September 19, 1989, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 4,868,629 (“the ’629 Patent”), entitled “Self-Aligned Split Gate EPROM,” to Boaz Eitan. A copy of the ’629 Patent is attached to the Complaint as Exhibit B.

34. On August 20, 1991, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 5,042,009 (“the ’009 Patent”), entitled “Method for Programming a Floating Gate Memory Device,” to Kazerounian *et al.* A copy of the ’009 Patent is attached to the Complaint as Exhibit C.

35. The '719, '629, and '009 patents are collectively referred to herein as the "Patents-in-Suit."

36. Keranos currently holds all applicable exclusive enforcement rights for infringement of the Patents-in-Suit through an agreement with United Module, Inc., which owns all rights, title and interest in the Patents-in-Suit.

**FIRST CAUSE OF ACTION**  
**(Infringement of the '719 Patent)**  
**(35 U.S.C. § 271)**

37. Plaintiff repeats and incorporates by reference each of the allegations contained in Paragraphs 1 through 36 above, and further alleges as follows:

38. On information and belief, without a license or permission from Plaintiff, Defendant ADI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by ADI in press releases and other public literature as model numbers/series ADUC814; ADUC824; and ADUC831 and related family of products. ADI's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, ADI's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

39. On information and belief, without a license or permission from Plaintiff, the Alcatel Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other

devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include the Litespan(r) Multiservice Access Platform identified specifically by the Alcatel Defendants in press releases and other public literature. The Alcatel Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Alcatel Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

40. On information and belief, without a license or permission from Plaintiff, Defendant Apple infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include cell phones identified by Apple in press releases and other public literature as various models of the iPhone and related family of products. Apple's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Apple's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

41. On information and belief, without a license or permission from Plaintiff, Defendant Atheros infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of

the specific products include certain devices identified by defendant in press releases and other public literature as the AR6001GL; AR6001XL and related family of products. Atheros's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Atheros's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

42. On information and belief, without a license or permission from Plaintiff, the Austriamicrosystems Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Austriamicrosystem Defendants in press releases and other public literature as model numbers/series AS3524; AS3525A; AS3525B; AS3527; AS3531 and related family of products; as well as foundry devices with embedded flash made for the Austriamicrosystem Defendants' customers. The Austriamicrosystems Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Austriamicrosystems Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

43. On information and belief, without a license or permission from Plaintiff, the EM Micro Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete

form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified specifically by the EM Micro Defendants in press releases and other public literature as model numbers/series EMTCG256-3G and related smart card IC family of products. The EM Micro Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the EM Micro Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

44. On information and belief, without a license or permission from Plaintiff, the Epson Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Epson Defendants in press releases and other public literature as model numbers/series S1C33240; S1C8F360; S1C8F626; S1C17 Family 16-bit microcontrollers; S1C6P366; S1C6F416; S1C6P466; S1C6F567; S1C6F666; S1C6F632 and related family of products; and foundry devices with embedded flash made for Epson customers. The Epson Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Epson Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

45. On information and belief, without a license or permission from Plaintiff, Defendant Freescale infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling

products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series 68HC05 (CPU05), 68HC08 (CPU08), 68HC11 (CPU11), 68HC12 (CPU12), 68HC16 (CPU16), 683XX, MPC500, MPC 860, MPC 8240/8250, MPC 8540/8555/8560, MM908E624 & 625; HC08 and related family of products. Freescale's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Freescale's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

46. On information and belief, without a license or permission from Plaintiff, the Infineon Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Infineon Defendants in press releases and other public literature as model numbers/series TC17xx, TC11xx, XC16x, XE16x, XC2xxx, XC8xx and related family of products; foundry devices with embedded flash made for Infineon customers. The Infineon Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Infineon Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

47. On information and belief, without a license or permission from Plaintiff, Defendant IBM infringed; induced others to infringe; and/or committed acts of

contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as being made for foundry customers using IBM embedded flash processes, as well as an IBM System x3100 product. IBM's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, IBM's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

48. On information and belief, without a license or permission from Plaintiff, Defendant Intel infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by defendant in press releases and other public literature as 945 Express chipset & 82573E LAN. Intel's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Intel's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

49. On information and belief, without a license or permission from Plaintiff, Defendant Microchip infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling

products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series PIC10; PIC12; PIC16; PIC18; PIC24; dsPIC DSCs; PIC32 and related family of products. Microchip's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Microchip's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

50. On information and belief, without a license or permission from Plaintiff, the Micronas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Micronas Defendants in press releases and other public literature as the CEA 3207A; CDC3217G; CDC3257G; HVC 22xyA; HVC 24xyA and related family of products. The Micronas Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Micronas Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

51. On information and belief, without a license or permission from Plaintiff, the Nanya Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other



devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Nanya Defendants in press releases and other public literature as foundry devices with embedded flash made for the Nanya Defendants' customers. The Nanya Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Nanya Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

52. On information and belief, without a license or permission from Plaintiff, Defendant National infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series COP8, CR16 and related family of products. National's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, National's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

53. On information and belief, without a license or permission from Plaintiff, Defendant NEC infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form,

wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers and/or ASICs identified by defendant in press releases and other public literature as model numbers/series V850 family; 78Kxx; Fx2 series; Fx3 series; and related family of products. NEC's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, NEC's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

54. On information and belief, without a license or permission from Plaintiff, the NXP Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the NXP Defendants in press releases and other public literature as model numbers/series LPC2888; LPC2917/2919/01; PNX0161; LPC2000 family and related family of products. The NXP Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the NXP Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

55. On information and belief, without a license or permission from Plaintiff, the ROHM Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form,

wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the ROHM Defendants in press releases and other public literature as model numbers/series ML67Q4050/ML67Q4060; ML696500 series and related family of products; and foundry devices with embedded flash made for Oki customers. The ROHM Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the ROHM Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

56. On information and belief, without a license or permission from Plaintiff, Defendant Qualcomm infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include CDMA Wireless devices identified specifically by defendant in press releases and other public literature. Qualcomm's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Qualcomm's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

57. On information and belief, without a license or permission from Plaintiff, the Renesas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of

the specific products include certain devices identified by the Renesas Defendants in press releases and other public literature as model numbers/series SuperH; H8; M16C and M32R/ECU and related family of products. The Renesas Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Renesas Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

58. On information and belief, without a license or permission from Plaintiff, the Samsung Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Samsung Defendants in press releases and other public literature as model numbers/series S3F8xx, S3F4xxxx and related family of products; foundry devices with embedded flash made for Samsung customers; and Bluetooth products BTMZ5012XX; BTMZ7311XX. The Samsung Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Samsung Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

59. On information and belief, without a license or permission from Plaintiff, Defendant TI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of

the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series TMS470RX1; MSP430 family; TMS320C2000™ DSP Platform; CC2430; CC2510Fx / CC2511Fx and related family of products. TI's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, TI's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

60. On information and belief, without a license or permission from Plaintiff, the Toshiba Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Toshiba Defendants in press releases and other public literature as model numbers/series TMP92FD28FG/DFG; TMP91FW40FG; TMP91FW60FG/DFG; TMP86FH47; TMP86FS49; TMP92FD23AFG/ADFG; TMP86FM29; TMP86FM48; TMP91FY27; TMP91FY42; TMP92FD54; TMP94FD53; TMP89FS60; TMP91FW60; TLCS-870 family; TLCS-900 family; TX 19 family and related family of products. The Toshiba Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Toshiba Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

61. On information and belief, without a license or permission from Plaintiff, the TSMC Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other

devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by the TSMC Defendants in press releases and other public literature as being made by an EMBFLASH process and technology for foundry customers. The TSMC Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the TSMC Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

62. On information and belief, without a license or permission from Plaintiff, Defendant Ubicom infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as the IP2022; IP 3023; Parallax SX family of configurable communication controllers; DLP-245SY and related family of products. Ubicom's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, Ubicom's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

63. On information and belief, without a license or permission from Plaintiff, the Vanguard Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete

form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Vanguard Defendants in press releases and other public literature as foundry devices with embedded flash made for Vanguard customers. The Vanguard Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Vanguard Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

64. On information and belief, without a license or permission from Plaintiff, the Winbond Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Winbond Defendants in press releases and other public literature as model numbers/series WMS7170/1; ISD5008; W741E20X; ISD1700; W99688CBM3; W79E201; W79x549 and related family of products. The Winbond Defendants' infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, the Winbond Defendants' infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

65. On information and belief, without a license or permission from Plaintiff, Defendant ZiLOG infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '719 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form,

wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series Z8F2480XX20XXSG; Z8F2480XX20XXEG; Z8F1680XX20XXSG; Z8F1680XX20XXEG; Z8F0880XX20XXSG; Z8F0880XX20XXEG and related family of products. ZiLOG's infringement of the '719 Patent has caused substantial damage to Plaintiff. On information and belief, ZiLOG's infringement of the '719 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

**SECOND CAUSE OF ACTION**  
**(Infringement of the '629 Patent)**  
**(35 U.S.C. § 271)**

66. Plaintiff repeats and incorporates by reference each of the allegations contained in Paragraphs 1 through 65 above, and further alleges as follows:

67. On information and belief, without a license or permission from Plaintiff, Defendant ADI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by ADI in press releases and other public literature as model numbers/series ADUC814; ADUC824; and ADUC831 and related family of products. ADI's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, ADI's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

68. On information and belief, without a license or permission from Plaintiff, the Alcatel Defendants infringed; induced others to infringe; and/or committed acts of



contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include the Litespan(r) Multiservice Access Platform identified specifically by the Alcatel Defendants in press releases and other public literature. The Alcatel Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Alcatel Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

69. On information and belief, without a license or permission from Plaintiff, Defendant Apple infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include cell phones identified by Apple in press releases and other public literature as various models of the iPhone and related family of products. Apple's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Apple's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

70. On information and belief, without a license or permission from Plaintiff, Defendant Atheros infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling

products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as the AR6001GL; AR6001XL and related family of products. Atheros's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Atheros's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

71. On information and belief, without a license or permission from Plaintiff, the Austriamicrosystems Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Austriamicrosystem Defendants in press releases and other public literature as model numbers/series AS3524; AS3525A; AS3525B; AS3527; AS3531 and related family of products; as well as foundry devices with embedded flash made for the Austriamicrosystem Defendants' customers. The Austriamicrosystems Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Austriamicrosystems Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

72. On information and belief, without a license or permission from Plaintiff, the EM Micro Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or

more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified specifically by the EM Micro Defendants in press releases and other public literature as model numbers/series EMTCG256-3G and related smart card IC family of products. The EM Micro Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the EM Micro Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

73. On information and belief, without a license or permission from Plaintiff, the Epson Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Epson Defendants in press releases and other public literature as model numbers/series S1C33240; S1C8F360; S1C8F626; S1C17 Family 16-bit microcontrollers; S1C6P366; S1C6F416; S1C6P466; S1C6F567; S1C6F666; S1C6F632 and related family of products; and foundry devices with embedded flash made for Epson customers. The Epson Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Epson Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

74. On information and belief, without a license or permission from Plaintiff, Defendant Freescale infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series 68HC05 (CPU05), 68HC08 (CPU08), 68HC11 (CPU11), 68HC12 (CPU12), 68HC16 (CPU16), 683XX, MPC500, MPC 860, MPC 8240/8250, MPC 8540/8555/8560, MM908E624 & 625; HC08 and related family of products. Freescale's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Freescale's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

75. On information and belief, without a license or permission from Plaintiff, the Infineon Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Infineon Defendants in press releases and other public literature as model numbers/series TC17xx, TC11xx, XC16x, XE16x, XC2xxx, XC8xx and related family of products; foundry devices with embedded flash made for Infineon customers. The Infineon Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff.

On information and belief, the Infineon Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

76. On information and belief, without a license or permission from Plaintiff, Defendant IBM infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as being made for foundry customers using IBM embedded flash processes, as well as an IBM System x3100 product. IBM's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, IBM's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

77. On information and belief, without a license or permission from Plaintiff, Defendant Intel infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by defendant in press releases and other public literature as 945 Express chipset & 82573E LAN. Intel's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Intel's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

78. On information and belief, without a license or permission from Plaintiff, Defendant Microchip infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series PIC10; PIC12; PIC16; PIC18; PIC24; dsPIC DSCs; PIC32 and related family of products. Microchip's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Microchip's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

79. On information and belief, without a license or permission from Plaintiff, the Micronas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Micronas Defendants in press releases and other public literature as the CEA 3207A; CDC3217G; CDC3257G; HVC 22xyA; HVC 24xyA and related family of products. The Micronas Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Micronas Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

80. On information and belief, without a license or permission from Plaintiff, the Nanya Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Nanya Defendants in press releases and other public literature as foundry devices with embedded flash made for the Nanya Defendants' customers. The Nanya Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Nanya Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

81. On information and belief, without a license or permission from Plaintiff, Defendant National infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series COP8, CR16 and related family of products. National's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, National's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

82. On information and belief, without a license or permission from Plaintiff, Defendant NEC infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers and/or ASICs identified by defendant in press releases and other public literature as model numbers/series V850 family; 78Kxx; Fx2 series; Fx3 series; and related family of products. NEC's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, NEC's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

83. On information and belief, without a license or permission from Plaintiff, the NXP Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the NXP Defendants in press releases and other public literature as model numbers/series LPC2888; LPC2917/2919/01; PNX0161; LPC2000 family and related family of products. The NXP Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the NXP Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.



84. On information and belief, without a license or permission from Plaintiff, the ROHM Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the ROHM Defendants in press releases and other public literature as model numbers/series ML67Q4050/ML67Q4060; ML696500 series and related family of products; and foundry devices with embedded flash made for Oki customers. The ROHM Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the ROHM Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

85. On information and belief, without a license or permission from Plaintiff, Defendant Qualcomm infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include CDMA Wireless devices identified specifically by defendant in press releases and other public literature. Qualcomm's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, Qualcomm's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

86. On information and belief, without a license or permission from Plaintiff, the Renesas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Renesas Defendants in press releases and other public literature as model numbers/series SuperH; H8; M16C and M32R/ECU and related family of products. The Renesas Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Renesas Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

87. On information and belief, without a license or permission from Plaintiff, the Samsung Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Samsung Defendants in press releases and other public literature as model numbers/series S3F8xx, S3F4xxxx and related family of products; foundry devices with embedded flash made for Samsung customers; and Bluetooth products BTMZ5012XX; BTMZ7311XX. The Samsung Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Samsung Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

88. On information and belief, without a license or permission from Plaintiff, Defendant TI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series TMS470RX1; MSP430 family; TMS320C2000™ DSP Platform; CC2430; CC2510Fx / CC2511Fx and related family of products. TI's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, TI's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

89. On information and belief, without a license or permission from Plaintiff, the Toshiba Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Toshiba Defendants in press releases and other public literature as model numbers/series TMP92FD28FG/DFG; TMP91FW40FG; TMP91FW60FG/DFG; TMP86FH47; TMP86FS49; TMP92FD23AFG/ADFG; TMP86FM29; TMP86FM48; TMP91FY27; TMP91FY42; TMP92FD54; TMP94FD53; TMP89FS60; TMP91FW60; TLCS-870 family; TLCS-900 family; TX 19 family and related family of products. The Toshiba Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff.

On information and belief, the Toshiba Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

90. On information and belief, without a license or permission from Plaintiff, the TSMC Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by the TSMC Defendants in press releases and other public literature as being made by an EMBFLASH process and technology for foundry customers. The TSMC Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the TSMC Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

91. On information and belief, without a license or permission from Plaintiff, Defendant Uicom infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as the IP2022; IP 3023; Parallax SX family of configurable communication controllers; DLP-245SY and related family of products. Uicom's infringement of the '629 Patent has caused substantial damage to Plaintiff. On

information and belief, Ubicom's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

92. On information and belief, without a license or permission from Plaintiff, the Vanguard Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Vanguard Defendants in press releases and other public literature as foundry devices with embedded flash made for Vanguard customers. The Vanguard Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Vanguard Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

93. On information and belief, without a license or permission from Plaintiff, the Winbond Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Winbond Defendants in press releases and other public literature as model numbers/series WMS7170/1; ISD5008; W741E20X; ISD1700; W99688CBM3; W79E201; W79x549 and related family of products. The Winbond Defendants' infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, the Winbond

Defendants' infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

94. On information and belief, without a license or permission from Plaintiff, Defendant ZiLOG infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '629 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series Z8F2480XX20XXSG; Z8F2480XX20XXEG; Z8F1680XX20XXSG; Z8F1680XX20XXEG; Z8F0880XX20XXSG; Z8F0880XX20XXEG and related family of products. ZiLOG's infringement of the '629 Patent has caused substantial damage to Plaintiff. On information and belief, ZiLOG's infringement of the '629 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

**THIRD CAUSE OF ACTION**  
**(Infringement of the '009 Patent)**  
**(35 U.S.C. § 271)**

95. Plaintiff repeats and incorporates by reference each of the allegations contained in Paragraphs 1 through 94 above, and further alleges as follows:

96. On information and belief, without a license or permission from Plaintiff, Defendant ADI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of

the specific products include certain devices identified by ADI in press releases and other public literature as model numbers/series ADUC814; ADUC824; and ADUC831 and related family of products. ADI's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, ADI's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

97. On information and belief, without a license or permission from Plaintiff, the Alcatel Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include the Litespan(r) Multiservice Access Platform identified specifically by the Alcatel Defendants in press releases and other public literature. The Alcatel Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Alcatel Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

98. On information and belief, without a license or permission from Plaintiff, Defendant Apple infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include cell phones identified by Apple in press releases and other

public literature as various models of the iPhone and related family of products. Apple's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Apple's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

99. On information and belief, without a license or permission from Plaintiff, Defendant Atheros infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as the AR6001GL; AR6001XL and related family of products. Atheros's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Atheros's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

100. On information and belief, without a license or permission from Plaintiff, the Austriamicrosystems Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Austriamicrosystem Defendants in press releases and other public literature as model numbers/series AS3524; AS3525A; AS3525B; AS3527; AS3531 and related family of products; as well as foundry devices with embedded flash made



for the Austriamicrosystem Defendants' customers. The Austriamicrosystems Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Austriamicrosystems Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

101. On information and belief, without a license or permission from Plaintiff, the EM Micro Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified specifically by the EM Micro Defendants in press releases and other public literature as model numbers/series EMTCG256-3G and related smart card IC family of products. The EM Micro Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the EM Micro Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

102. On information and belief, without a license or permission from Plaintiff, the Epson Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Epson Defendants in press

releases and other public literature as model numbers/series S1C33240; S1C8F360; S1C8F626; S1C17 Family 16-bit microcontrollers; S1C6P366; S1C6F416; S1C6P466; S1C6F567; S1C6F666; S1C6F632 and related family of products; and foundry devices with embedded flash made for Epson customers. The Epson Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Epson Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

103. On information and belief, without a license or permission from Plaintiff, Defendant Freescale infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series 68HC05 (CPU05), 68HC08 (CPU08), 68HC11 (CPU11), 68HC12 (CPU12), 68HC16 (CPU16), 683XX, MPC500, MPC 860, MPC 8240/8250, MPC 8540/8555/8560, MM908E624 & 625; HC08 and related family of products. Freescale's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Freescale's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

104. On information and belief, without a license or permission from Plaintiff, the Infineon Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other

devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Infineon Defendants in press releases and other public literature as model numbers/series TC17xx, TC11xx, XC16x, XE16x, XC2xxx, XC8xx and related family of products; foundry devices with embedded flash made for Infineon customers. The Infineon Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Infineon Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

105. On information and belief, without a license or permission from Plaintiff, Defendant IBM infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as being made for foundry customers using IBM embedded flash processes, as well as an IBM System x3100 product. IBM's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, IBM's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

106. On information and belief, without a license or permission from Plaintiff, Defendant Intel infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other

devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by defendant in press releases and other public literature as 945 Express chipset & 82573E LAN. Intel's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Intel's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

107. On information and belief, without a license or permission from Plaintiff, Defendant Microchip infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press releases and other public literature as model numbers/series PIC10; PIC12; PIC16; PIC18; PIC24; dsPIC DSCs; PIC32 and related family of products. Microchip's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Microchip's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

108. On information and belief, without a license or permission from Plaintiff, the Micronas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of

the specific products include certain devices identified by the Micronas Defendants in press releases and other public literature as the CEA 3207A; CDC3217G; CDC3257G; HVC 22xyA; HVC 24xyA and related family of products. The Micronas Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Micronas Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

109. On information and belief, without a license or permission from Plaintiff, the Nanya Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Nanya Defendants in press releases and other public literature as foundry devices with embedded flash made for the Nanya Defendants' customers. The Nanya Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Nanya Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

110. On information and belief, without a license or permission from Plaintiff, Defendant National infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by defendant in press

releases and other public literature as model numbers/series COP8, CR16 and related family of products. National's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, National's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

111. On information and belief, without a license or permission from Plaintiff, Defendant NEC infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers and/or ASICs identified by defendant in press releases and other public literature as model numbers/series V850 family; 78Kxx; Fx2 series; Fx3 series; and related family of products. NEC's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, NEC's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

112. On information and belief, without a license or permission from Plaintiff, the NXP Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the NXP Defendants in press releases and other public literature as model numbers/series LPC2888;

LPC2917/2919/01; PNX0161; LPC2000 family and related family of products. The NXP Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the NXP Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

113. On information and belief, without a license or permission from Plaintiff, the ROHM Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the ROHM Defendants in press releases and other public literature as model numbers/series ML67Q4050/ML67Q4060; ML696500 series and related family of products; and foundry devices with embedded flash made for Oki customers. The ROHM Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the ROHM Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

114. On information and belief, without a license or permission from Plaintiff, Defendant Qualcomm infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include CDMA Wireless devices identified specifically by

defendant in press releases and other public literature. Qualcomm's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, Qualcomm's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

115. On information and belief, without a license or permission from Plaintiff, the Renesas Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Renesas Defendants in press releases and other public literature as model numbers/series SuperH; H8; M16C and M32R/ECU and related family of products. The Renesas Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Renesas Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

116. On information and belief, without a license or permission from Plaintiff, the Samsung Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Samsung Defendants in press releases and other public literature as model numbers/series S3F8xx, S3F4xxxx and related family of products; foundry devices with embedded flash made for Samsung



customers; and Bluetooth products BTMZ5012XX; BTMZ7311XX. The Samsung Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Samsung Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

117. On information and belief, without a license or permission from Plaintiff, Defendant TI infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series TMS470RX1; MSP430 family; TMS320C2000™ DSP Platform; CC2430; CC2510Fx / CC2511Fx and related family of products. TI's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, TI's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

118. On information and belief, without a license or permission from Plaintiff, the Toshiba Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain microcontrollers identified by the Toshiba Defendants in press releases and other public literature as model numbers/series TMP92FD28FG/DFG; TMP91FW40FG; TMP91FW60FG/DFG; TMP86FH47;

TMP86FS49; TMP92FD23AFG/ADFG; TMP86FM29; TMP86FM48; TMP91FY27; TMP91FY42; TMP92FD54; TMP94FD53; TMP89FS60; TMP91FW60; TLCS-870 family; TLCS-900 family; TX 19 family and related family of products. The Toshiba Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Toshiba Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

119. On information and belief, without a license or permission from Plaintiff, the TSMC Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include those identified by the TSMC Defendants in press releases and other public literature as being made by an EMBFLASH process and technology for foundry customers. The TSMC Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the TSMC Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

120. On information and belief, without a license or permission from Plaintiff, Defendant Uicom infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases

and other public literature as the IP2022; IP 3023; Parallax SX family of configurable communication controllers; DLP-245SY and related family of products. UbiCom's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, UbiCom's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

121. On information and belief, without a license or permission from Plaintiff, the Vanguard Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Vanguard Defendants in press releases and other public literature as foundry devices with embedded flash made for Vanguard customers. The Vanguard Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Vanguard Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

122. On information and belief, without a license or permission from Plaintiff, the Winbond Defendants infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by the Winbond Defendants in press releases and other public literature as model numbers/series WMS7170/1;

ISD5008; W741E20X; ISD1700; W99688CBM3; W79E201; W79x549 and related family of products. The Winbond Defendants' infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, the Winbond Defendants' infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

123. On information and belief, without a license or permission from Plaintiff, Defendant ZiLOG infringed; induced others to infringe; and/or committed acts of contributory infringement, literally or under the doctrine of equivalents, of one or more claims of the '009 Patent by importing, making, using, offering to sell, and/or selling products and devices which embody the patented invention, including, among other devices, integrated circuits using embedded flash memory embodied in discrete form, wafer form, or incorporated within larger systems on printed circuit boards. Some of the specific products include certain devices identified by defendant in press releases and other public literature as model numbers/series Z8F2480XX20XXSG; Z8F2480XX20XXEG; Z8F1680XX20XXSG; Z8F1680XX20XXEG; Z8F0880XX20XXSG; Z8F0880XX20XXEG and related family of products. ZiLOG's infringement of the '009 Patent has caused substantial damage to Plaintiff. On information and belief, ZiLOG's infringement of the '009 Patent was willful and deliberate, entitling Plaintiff to enhanced damages and attorneys' fees.

### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for relief as follows:

A. Declaring that the Patents-in-Suit are valid and enforceable, and that each Defendant has infringed one or more claims of the Patents-in-Suit;

B. Awarding Plaintiff damages in an amount adequate to compensate Plaintiff for each defendant's infringement, in accordance with 35 U.S.C. § 284;

D. Increasing the damages to three times the amount found or assessed by virtue of the deliberate and willful nature of each defendant's infringement, in accordance with 35 U.S.C. § 284;

E. Awarding Plaintiff its costs of suit, including reasonable attorneys' fees, because this is an exceptional case under 35 U.S.C. § 285; and

F. Granting such other and further relief as this Court may deem just and appropriate.

**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff Keranos demands a trial by jury of this action.

Dated: June 23, 2010

Respectfully submitted,

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